DOCUMENT RESUME

ED 399 088 PS 024 556

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TITLE Four Years of Change in Education 5-14.
INSTITUTION Scottish Council for Research in Education, Edinburgh.
SPONS AGENCY Scottish Office Industry Dept., Edinburgh.
REPORT NO ISBN-1-86003-025-4; SCRE-RR-75
PUB DATE Jun 96
NOTE 41p.; For related documents, see ED 390 171-73 and PS 024 557.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *British National Curriculum; *Curriculum Development; Educational Change; Educational Improvement; Elementary Secondary Education; English Instruction; Foreign Countries; Guidelines; Mathematics Instruction; Program Effectiveness; Program Evaluation; Program Implementation
IDENTIFIERS *Scotland

ABSTRACT

The 5-14 Development Programme was a major reform encompassing the whole of the curriculum, assessment, national testing and reporting for pupils of age 5 to 14 in Scotland. Between 1989 and 1993, national guidelines were developed for five curricular areas: English language, mathematics, environmental studies, expressive arts, and religious/moral education; and for personal and social development, reporting, assessment, and national testing. This Executive Summary of the first four years' evaluation sets out the main findings against the background to the development program itself and to the evaluation. It is in three main parts. The first part begins by placing 5-14 in the context of curriculum changes in Scottish schools since the 1960s. The second part describes the structure and methods of the evaluation program, which comprised four coordinated projects. The third section summarizes the findings, drawing upon the findings described in detail in the final reports. It concludes by bringing the findings together to consider the implementation in relation to the overarching aims of 5-14: to promote breadth, balance, coherence, continuity, and progression in pupils' learning. (WJC)

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Four Years of Change in Education 5 – 14

Wynne Harlen

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Four Years of Change in Education 5 – 14

Wynne Harlen

The Scottish Council for Research in Education

SCRE Research Report No 75

ISBN 1 86003 025 4

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First published June 1996

A report of work carried out in four projects concerned with the evaluation of the implementation of the 5–14 Development Programme, funded by the Scottish Office Education and Industry Department (SOEID) between March 1991 and March 1995. The projects were based at the Scottish Council for Research in Education, The University of Edinburgh, The University of Strathclyde and Northern College.

The views expressed are those of the authors and are not necessarily those of the Scottish Council for Research in Education or the Scottish Office Education and Industry Department or of the institutions at which the projects were based.

Printed and bound by the Scottish Council for Research in Education, 15 St John Street, Edinburgh EH8 8JR.

Contents

Acknowledgements iv

1 Introduction 1

2 Background and Form of the 5-14 Development Programme 2
- Background 2
- The curriculum 5-14 and its implementation 5
- Curriculum guidelines 6
- Guidelines on assessment 7
- Guidelines on reporting 9

3 Evaluation of the Implementation 10
- The evaluation context 10
- The funded evaluation programme 11

4 Main Findings 18
- Introduction 18
- Reactions to the curriculum guidelines 18
- The process of implementation 19
- Changes resulting from 5-14 22
- Continuity at points of transition 22
- Catering for pupils of all abilities 23
- The guidelines on assessment 24
- National testing 27
- Reporting 5-14 29
- Breadth, balance, coherence, continuity and progression 30
- In conclusion 32

References 33

Final Reports 34

List of tables and figures:

Figure 1: Links between curricular areas and curricular activities 3
Figure 2: Balance of allocation of time 4
Figure 3: Evaluation timetable 15

Table 1: Dates of publication of working papers and national guidelines 5
Table 2: Main events in the co-ordinated projects 16

Acknowledgements

On behalf of all members of the research team I want to thank all those who helped with this research. The list is very long and must be headed by all the teachers and head teachers who tolerated our presence in their schools and endured our questioning. Without their generosity in giving up their time, the work could not have been carried out.

Our project committee members also gave generously of their time and we valued their advice and support. We would like to thank Mr. J. Duffin, Mr. I. M. Dutton, Miss R. McDonald, Mrs. I Veitch and Prof. G. M. Wilson and senior members of the SOEID for their help in serving on this committee throughout the project.

We are indeed most grateful to Jennie Jackson who gave outstanding secretarial support to the project at SCRE and to the co-ordination of the four projects throughout the whole of the evaluation programme. Thanks are also due to Joan Ballantine who has taken the SCRE reports through to publication.

Wynne Harlen
April 1996

1 Introduction

The 5-14 Development Programme was a major reform encompassing the whole of the curriculum, assessment, national testing and reporting for pupils of age 5 to 14 in Scotland. What came to be know simply as '5-14' was first announced in a consultation document in 1987 (SED, 1987). From 1989 working groups were set up to take forward the development. When their work was completed in 1993, with the publication of the final guidelines, the work in the schools was in its early stages, having begun in 1991 when the guidelines for English language and for mathematics were published in final form.

The evaluation of the early years of the implementation of 5-14 was an extended and ambitious undertaking, appropriate to the major scale of the innovation. It took place from 1991 to March 1995 and is being followed by a further two year study sponsored by the Scottish Office Education and Industry Department. This Executive Summary of the first four years' evaluation sets out the main findings against the background to the development programme itself and to the evaluation. It is in three main parts.

The first part begins by placing 5-14 in the context of curriculum changes in Scottish schools since the 1960s. This background is important given that the continuity with previous practice was stressed in the documents. It explains why the Scottish reform excluded the final two years of compulsory schooling, whilst the National Curriculum, being introduced in England and Wales at the same time, covered the ages 5 - 16. This section also provides an overview of the 5-14 curriculum, assessment, testing and reporting guidelines.

The second part describes the structure and methods of the evaluation programme, which comprised four co-ordinated projects. The evaluation had several features which make it of particular interest in the context of national curriculum evaluation. It was formative in function and longitudinal in design, following the same samples of primary and secondary schools over the years when 5-14 was being introduced. The co-ordination of the four projects was also a significant and rather unusual feature that promoted collaboration in data collection and interpretation among teams of researchers.

The third section summarises the findings, drawing upon the findings described in detail in the final reports, listed on page 34. It concludes by bringing the findings together to consider the implementation in relation to the overarching aims of 5-14, to promote breadth, balance, coherence, continuity and progression in pupils' learning. At the end, however, it is clear that this is the beginning, not the conclusion, of the story of the implementation of this major reform.

2 Background and Form of the 5–14 Development Programme

Background

Although the 5–14 Development Programme was initiated in Scotland at the same time as the National Curriculum in England and Wales and the Northern Ireland Curriculum in Northern Ireland, it did not represent the same sharp change in Scotland as did the reform in the other countries of the UK. In both structure and content there was considerable continuity between the 5–14 Programme and previous practice. There was also a tradition of central influence on the curriculum, exercised through the Inspectorate and through the Consultative Committee on the Curriculum (CCC) since its establishment in 1965. For these and other reasons the new curriculum was introduced not as a sweeping and a mandatory reform but as 'a programme of clarification and definition' (SED, 1987). The Programme gives 'guidance' on the curriculum, assessment and reporting.

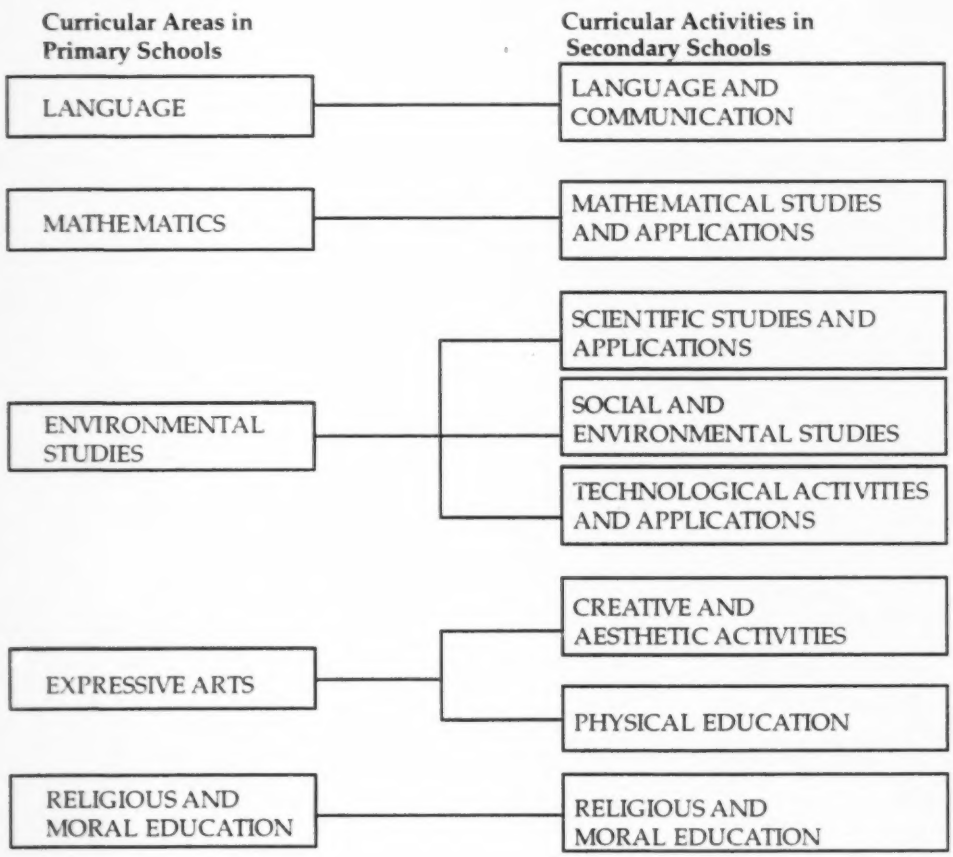
In the structure of the curriculum, the 5–14 Programme reflects continuity with policies originating in the 1960s and 1970s. In the case of the primary school, the influential 1965 report of the working party set up by the SED, known as the Primary Memorandum, initiated a change from a subject-based curriculum to a more integrated one and from a teacher-centred to a child-centred approach to teaching. In the subsequent two decades several models of the primary curriculum were in operation, with various combinations of environmental studies, expressive arts, language and mathematics (see, for example, CCC, 1986 p87). Thus what was to be the organisation of the curriculum in the 5–14 programme had already been considered and indeed practised in some parts for several years. Also, what was to become the sub-structure of attainment outcomes was anticipated in the debate, for example, about the components of language. An HMI report of 1981, *Learning and Teaching in P4 and P7*, identified four aspects of language development which, although not identical with the 5–14 attainment outcomes, signify acknowledgement of the importance of speaking, listening, reading and writing. The emergence of mathematics as a separate curriculum area (rather than as a part of environmental studies as the primary memorandum had proposed) probably reflects the growing recognition of the importance of science and technology to modern living and their underpinning by mathematics.

At the secondary level, the initial activities of the CCC after its formation in 1965 supported development and innovation within the established subject disciplines and added more subjects to the curriculum. The need to look at the whole curriculum was met by setting up the Munn Committee in 1975. Charged with considering the structure and balance of the curriculum for S3 and S4, this committee recommended eight 'modes of activity or fields of study' as the basis for balance. With some modification of detail this became the framework for the

Munn and Dunning Development Programme which implemented the new curriculum and certification in the form of the Scottish Certificate of Education, Standard Grade. This development was complex and extensive, involving the preparation of syllabuses, in many cases at three levels (foundation, general and credit). There were logistic and academic difficulties to overcome and in 1987, when the proposals for a new school curriculum were announced, secondary schools were still in the midst of transition from the old 'O' Grade to the new 'S' Grade examinations for the 16 year olds. Consequently there was no need of further reform of the programme for S3 and S4, and the new curriculum was confined to the primary schools and to S1 and S2, thus becoming the 5–14 Development Programme.

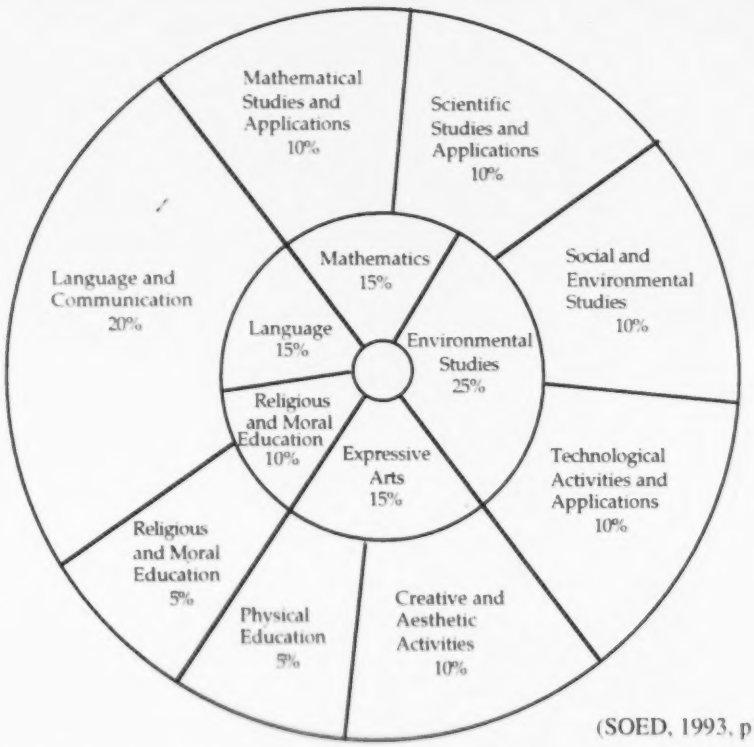
The link between the structure of curricular areas in the primary curriculum and the modes or activities in the secondary school was set out in diagrammatic form as in Figure 1, which is from the working paper on 'The Structure and Balance of the Curriculum 5–14' (1989). In addition to the five curriculum areas, there are also guidelines for personal and social development, for assessment, for reporting and a framework for national testing. The guidelines for language comprise separate documents for English, Modern European languages, Latin and Gaelic.

Figure 1: Links between curricular areas and curricular activities



However, it was recognised in the final version of *The Structure and Balance of the Curriculum 5–14* (SOED, 1993) that the relationship is rather more complex, as Figure 2 indicates. This gives the advised allocation of time for each area, in each phase adding to 80%, allowing 20% of time in both primary and secondary schools for flexible planning.

Figure 2 Balance of allocation of time


Mathematical Studies and Applications 10%
Scientific Studies and Applications 10%
Social and Environmental Studies 10%
Technological Activities and Applications 10%
Creative and Aesthetic Activities 10%
Physical Education 5%
Religious and Moral Education 5%
Language and Communication 20%
Mathematics 15%
Language 15%
Environmental Studies 25%
Religious and Moral Education 10%
Expressive Arts 15%

(SOED, 1993, p16)

The 'structure and balance' document also provides a succinct summary of the process of development of guidelines by working groups set up by the Scottish CCC.

> Following consultation on the [1987] paper, the Secretary of State invited the Scottish Consultative Council on the Curriculum (SCCC) to review the curricular advice already in existence and, in the light of that review, to develop guidelines covering the curriculum and assessment of pupils aged 5 to 14. This set in motion the 5–14 Development Programme ...
>
> ... During the period 1989–1991 six groups reviewed and made proposals on curriculum content and programmes of study in English Language, Mathematics, Environmental Studies, Expressive Arts, Religious and Moral Education, and Personal and Social Development; and on Developing the Whole Curriculum 5–14. Two further groups offered parallel advice on Assessment and Testing and on Reporting. In the curriculum area of Language, task groups were also established to provide guidance on Latin and Modern European Languages in S1 and S2, and on Gaelic 5–14.
>
> (SOED, 1993, p1)

The working groups typically comprised 15 to 20 invited members, including senior staff from primary and secondary schools, college of education lecturers, local authority advisers and SCCC national development officers, with an HMI as SOED assessor, and chaired by a Regional Director of Education or Senior Depute Director.

The curriculum 5–14 and its implementation

The curriculum, assessment and reporting guidelines developed through the procedures just described were issued as working papers (draft guidelines) and as final versions of the national guidelines on the dates indicated in Table 1. These dates are pertinent to the work of the evaluation projects, which were concerned with the implementation of the guidelines and extended from April 1991 to March 1995.

Table 1: Dates of publication of working papers and national guidelines

Title	Published as working paper	Published as national guidelines
English language	March 1990	June 1991
Mathematics	May 1990	August 1991
Environmental Studies	November 1991	March 1993
Expressive arts	February 1991	June 1992
Religious and moral education	May 1991	November 1992
Personal and social development	June 1992	June 1993
Gaelic	December 1992	June 1993
Latin	August 1991	August 1992
Modern European languages	August 1991	August 1992
Assessment	September 1990	October 1991
Framework for testing (in 1991-2) (from 1993 onwards)	August 1991	December 1992
Reporting	August 1991	November 1992
Structure and balance of the curriculum 5–14	March 1989	June

Implementation was not only determined by the date of publication but also by the priority given to English and mathematics, the conventional core of the curriculum. However, it was not until early 1994 that an official statement was made about the pace of implementation. A document from Her Majesty's Inspectors, entitled *5–14: A Practical Guide* (SOED, 1994a) proposed that:

> By the end of session 1993–94:
>
> - **all** schools should have a strategy for the implementation of all the 5–14 guidelines. HM Inspectors will discuss this strategy with headteachers during inspections; and

- **all** teachers should be familiar with the 5–14 concepts and terminology of levels, attainment outcomes, strands and attainment targets.

By the end of session 1994–95:

- the guidelines on English language and mathematics should be implemented in **all** primary and secondary schools. Schools should have applied *Assessment 5–14* to English language and mathematics. Teachers should be using 5–14 concepts and terminology in planning and assessing pupils' work in English language and mathematics and in reporting to parents.

By the end of session 1995–96:

- **all** schools should be extending the use of the 5–14 planning and assessment to those areas of the curriculum identified in their reviews of practice as being in most need of development. By this time, primary and secondary schools should be implementing the national guidelines in environmental studies or expressive arts or religious and moral education. Priority should be given to curriculum areas or attainment outcomes where there is most to be done.

In session 1998–99:

- 5–14 should be in place in all areas of the curriculum. As the 5–14 framework will be familiar from the earlier phases, it should be easier to apply the concepts as these areas are tackled.

(SOED, 1994a, p11 and 12)

This guidance reflected the pace of change which most schools were finding tolerable. The SOED's initial reluctance to set a timetable may well have contributed to the pressure perceived by schools in the early years of implementation, 1992 and 1993 (see p 21) and the acknowledgement of what was realistic was welcomed. In effect it gave credence to the view, expressed by many from the beginning, that the implementation would take ten years.

■ Curriculum guidelines

Each set of guidelines relating to the curriculum sets out a description of expected attainment in terms of *attainment outcomes* (the broad aspects of the subject area), *strands* (sub-divisions of outcomes which are the key aspects of learning) and *attainment targets* (specific learning targets of each strand, set out at five levels of progressive demand). The five levels, A to E, are separated, on average, by two years' development and are defined as follows:

Level A	should be attainable in the course of the first three years at primary school by almost all pupils
Level B	should be attainable by some pupils in P3 or even earlier, but certainly by most in P4
Level C	should be attainable in the course of P4 to P6 by most pupils
Level D	should be attainable by some pupils in P5 or P6 or even earlier, but certainly by most in P7
Level E	should be attainable by some pupils in P7 or S1, but certainly by most in S2.

There are some departures from the five level description in the cases of Latin, Gaelic and Modern European languages; in other guidelines certain strands are defined in general terms across all levels (as in the case of the strand 'Developing informed attitudes' in *Environmental Studies 5–14*) or are similarly defined for levels D and E.

In setting out the content in this way the intention was to promote the translation into practice of a curriculum with breadth, balance, coherence, continuity and progression. These five features were regarded by policy-makers as key principles of the 5–14 Programme and provided the overall foci for the evaluation of the programme and its implementation:

> **Breadth** provides appropriate experiences to ensure the coverage of a sufficiently comprehensive range of areas of learning.
>
> **Balance** ensures that appropriate time is allocated to each area of curricular activity and that provision is made for a variety of learning experiences.
>
> **Coherence** requires the establishment of links across the various areas of learning so that pupils begin to make connections between one area of knowledge and skills and another.
>
> **Continuity** ensures that learning builds on pupils' previous experience and attainment.
>
> **Progression** provides pupils with a series of challenging but attainable goals.
>
> (SOED, 1993, p 6)

Each one of the curriculum guidelines also provides advice on programmes of study, about catering for individual needs, about assessment in the context of the particular subject area and about recording and reporting.

■ Guidelines on assessment

The guidelines on assessment present a strategy for implementing assessment in the context of teaching and learning. There are three parts to the guidelines: 'Assessment 5–14'; 'Guidelines for assessment in schools'; 'From Guidelines to Policy and Practice: A Staff Development Pack'. The first part sets out five key elements in the assessment process which are:

Planning:	knowing and sharing what is to be learned
Teaching:	assessment as part of effective learning and teaching
Recording:	summarising success and progress
Reporting:	providing useful feedback
Evaluating:	using assessment to evaluate learning and teaching.

Together these describe what is involved in assessment by teachers for formative and summative purposes (although the guidelines do not use these words). Part two of the guidelines spells out principles relating to each of the five elements and suggests methods through which each can be implemented. Part three is a separate publication, in the form of a ring binder, comprising activities designed to help school staff work out their own policies and procedures for assessment.

National tests are described as 'part of the overall 5–14 assessment strategy' (SOED, 1991). It is in this aspect only that substantial changes have been made in

the first three years of 5–14 implementation. The consultation paper (SED, 1987) envisaged national tests in English and mathematics for all pupils in P4 and P7. New test materials were developed by the Primary Assessment Unit set up by the Scottish Examination Board (SEB) for this purpose. Pilot trials were carried out in a small number of schools in 1990 and the first national pilot was mounted in May and June of 1991. As a result of action taken by teachers and parents objecting to the principle of testing, only one third of eligible pupils took the tests. Certain changes were made to meet objections relating to workload before the 1992 testing, but there was no change in the level of co-operation. More fundamental changes were then made after the 1992 testing and new arrangements were drawn up and put out for consultation. The new arrangements, to be implemented in primary schools from 1993 and in secondary schools from 1994, provided for all pupils to take tests in English and mathematics when their teachers' assessment indicates that they are ready to move from one level to the next. Thus the tests 'provide teachers with the means to check their own assessments and should ensure more consistent interpretation by teachers of what particular levels of attainment mean' (SOED, 1992a). The regulation requiring testing to take place (imposed in 1991) was removed in recognition of co-operation with the new arrangements. The testing thus became voluntary, in uniformity with the rest of the 5–14 Programme.

Guidance on the revised arrangements for testing was given by the SEB, whose Primary Assessment Unit (PAU) was renamed the Five to Fourteen Assessment Unit (FFAU). The document *The Framework for National Testing* set out the key principles as follows:

> the arrangements for testing apply to all pupils, with the proviso that the participation of pupils with a record of needs is at the discretion of the education authority after consultation with a parent of the pupil concerned;
>
> the tests assess pupils' progress against nationally agreed attainment targets;
>
> the tests, based on materials produced by teachers, should be part of teachers' continuous assessment of pupils' progress;
>
> a pupil will be tested in an aspect (Reading, Writing, Mathematics) when the teacher's own assessment indicates that the pupil has largely achieved attainment targets at one level in that aspect, and is ready to move from that level to the next;
>
> the arrangements for testing give schools a flexibility in the choice of content, application and timing, consistent with an effective system of testing which does not put pupils under undue pressure;
>
> the tests are selected, administered and marked by teachers themselves, thus ensuring that they are an integral part of the teacher's professional judgement of a pupil's progress;
>
> an individual pupil's performance in tests is communicated only to the pupil and parent, and recorded in the pupil's progress record.
>
> (SEB, 1992, p2)

Further advice was given in two documents compiled by the Committee on Testing entitled *Assessment 5–14: A Teachers' Guide to National Testing in Primary Schools* (SEB, 1993a) and *Assessment 5–14: A Teachers' Guide to National Testing in Secondary Schools* (SEB, 1993b).

Guidelines on reporting

The guidelines *Reporting 5–14* concern communication between home and school. They set out principles of good practice in reporting and advice on putting the principles into practice. They suggest a report in the form of a booklet which allows opportunity for schools to:

> comment concisely on **strengths** and **development needs** in each curriculum area or subject and in aspects of personal and social development, including attendance;
>
> provide an overall assessment of **the pupil's level(s) of attainment** in classwork and, where appropriate, in national tests;
>
> identify suitable **Next Steps** in the pupil's work;
>
> by means of a **Parent's Response** sheet give parents the opportunity to react to the report and to raise their own points for discussion;
>
> specify a **contact teacher** for parents.
>
> (SOED, 1992b, p3)

Each of these features is described and exemplified in the guidelines. There is also a section on involving parents, other teachers and pupils in the reporting process, which is seen as including, but not being confined to, the written form.

3 Evaluation of the Implementation

The evaluation context

At the end of 1990 the SOED set out plans for a project to evaluate the implementation of the 5–14 Programme. This was to be an independent evaluation and would be in addition to other forms of evaluation already in existence or on-going. It is important for the evaluation programme described in this report to be seen in the context of other sources of information being used by the SOED for evaluating the 5–14 Programme. Its particular aims were specified so as to complement and not duplicate those of other evaluation procedures.

The main sources of information for evaluating the 5–14 Programme and its implementation were:

- the National Development Officers, who were monitoring trials of guidelines and early versions of national tests in designated pilot schools
- HMI, who collated relevant information from the General Inspection Programme and through some more focused studies (a progress report was published in June 1994 (SOED, 1994b))
- the Assessment of Achievement Programme (AAP) which monitored achievement of a sample of pupils in P4, P7 and S2 in English, mathematics and science in three year cycles
- contracted evaluators, through the projects described here.

From the first three of these sources, information was collected relating to the detailed content of the working papers (such as whether particular attainment targets were pitched at appropriate levels), the general level of attainment in English and mathematics and the progress of schools in implementing curriculum and assessment guidelines, and baseline outcome measures of a national sample of pupils. Measures of outcomes were also available by monitoring S Grade results. The independent evaluation was thus not intended to deal with the detailed content of the guidelines nor with measures of pupil achievement. Instead the work of evaluators was seen as focusing on the effectiveness of the process of implementation, the impact of changes on teachers and pupils of specific guidelines and of the 5–14 Programme as a whole, the usefulness of the assessment guidelines and the use made by teachers of results of assessment, the process of testing, the perceived usefulness of the new pupil report cards, and the extent to which teachers' needs were met by the various forms of staff development.

The thoroughness with which each of these areas could be studied by the evaluation programme depended on its timing and duration and the resources available. The programme began in autumn 1991 and ended in March 1995. This time scale provided an opportunity to follow the implementation of some guidelines over a period of three school sessions. Those for which this was possible were the curriculum guidelines for English language and for mathematics

and the assessment guidelines. Given the pace of implementation (see page 6) there was insufficient use of other curriculum guidelines for their impact, nor the impact of the Programme as a whole, to be evaluated. Although the guidelines on reporting were issued in November 1992, there was little impact in schools until 1993/94 and even then too few schools were actually using the new form for their effect to be seen in practice. These points will be picked up as the evaluation is continued, on a reduced scale, for a further two years from April 1995.

■ The funded evaluation programme

Structure

The evaluation programme was conceived as a set of four projects, each based in a different institution of higher education, co-ordinated from the Scottish Council for Research in Education (SCRE). The national co-ordinator was appointed from March 1991 to work with staff of the Research and Intelligence Unit of the Scottish Office Education Department in designing the structure of the evaluation programme and negotiating with the directors of the individual projects.

Initially the SOED proposed projects focused to reflect the structure of its 5–14 development committees, on the curriculum, on assessment and testing, on reporting and on staff development. After discussions the structure was revised since it was considered inappropriate to separate the study of curriculum change from assessment, given the tenor of the assessment guidelines advocating assessment as part of learning and teaching. Thus the four projects which were set up to begin in the autumn of 1991 were concerned with the evaluation of the implementation of:

- The guidelines on the curriculum and on assessment in the primary school (based at SCRE, Edinburgh)
- The guidelines on the curriculum and on assessment in the secondary school (based at Northern College, at Aberdeen and Dundee campuses)
- The guidelines on *Reporting 5–14* (based at Jordanhill College of Education, later to become Strathclyde University Faculty of Education)
- The 5–14 test material and its use in the primary school (based at the University of Edinburgh)

Although the publication of the guidelines on *Reporting 5-14* was not planned until 1992, the project concerned with reporting was begun at the same time as, but at a lower level of activity than, the others for two reasons: first, to ensure collaborative planning from the start; second, to take part in shared fieldwork which was integral to the co-ordination of the projects.

A change was made in the focus of the fourth project, on the test material and its use, following the new arrangements for national testing introduced in 1993. Testing then ceased to be carried out for specific primary school year groups at a particular time and became part of all teachers' roles in the primary and in the English and mathematics departments of secondary schools. It could therefore be more easily encompassed within the primary and secondary projects rather than treated separately. The opportunity was taken to switch the activity of the Edinburgh University team to study an aspect of the programme which had emerged as one of concern during the first two years of the evaluation, namely,

the extent to which the 5–14 guidelines supported balanced, coherent and progressive curriculum provision for the most and the least able pupils.

Features of the evaluation programme

The features of this evaluation, which in combination made it unusual, if not unique, in recent evaluation practice were:

- its formative function
- the co-ordination of the separate projects' activities
- its longitudinal design
- collaborative data collection among the projects.

In addition it had to work within two severe constraints:

- a restricted budget
- the overload felt by schools (particularly the more accessible ones) from involvement in research. (Scotland has about 2,350 primary and 410 secondary schools).

The evaluation programme is now described in terms of each of these features.

The formative function

As well as providing information for the SOED, the evaluators saw their role as being to provide teachers, parents and others with feedback about the progress and effects of the implementation of 5–14. In the original proposal for the evaluation the following broad principles were set out:

(a) the evaluation is formative, that is, it will obtain and report information which can be used in making improvements in the guidelines, support materials and training procedures

(b) it will collect information about issues and problems identified by teachers and parents as well as about those identified by the policy makers and researchers

(c) it will follow related practices over several years so that not only the initial problems, but the longer term influence of the introduced changes, can be studied

(d) it will provide information about strengths and weaknesses of various practices and build up descriptions of effective practice in particular circumstances, validated through discussion with teachers and made available to schools and local authority advisers through feedback meetings

(e) attention will be paid throughout to the effects of the changes on provision for children with special educational needs and to the multicultural dimension of education.

In carrying through these principles, the projects produced two sets of interim reports as well as final reports, published a brief summary of progress which was sent to all schools (SOED, 1994c), presented findings to headteachers, 5-14 co-ordinators in schools and Regional authority staff in two sets of three regional conferences and to HMI on several occasions. Papers were also presented, with the permission of SOED, at national educational research conferences from 1992 onwards (see page 16 for details).

Co-ordination

The co-ordination of the evaluation projects was one of the unique features of this programme. In practice it meant that the members of all four teams met regularly to plan the programme of data collection, to design instruments and agree interviewing and other procedures. A number of research questions was identified for the programme as a whole, each addressed by one or more of the projects. The initial research questions were:

1. What are teachers' views of the curriculum guidelines, support materials and training provided in relation to each area of the curriculum and overall?
2. How are the guidelines and support materials being used in planning at the school (primary) and department (secondary) level?
3. How are the guidelines and support materials being used by individual teachers in planning activities and class organisation and management?
4. How is teaching in action taking account of the curriculum guidelines?
5. What are teachers' views of the adequacy and usefulness of the assessment guidelines?
6. To what extent and in what ways have the assessment guidelines been taken into account in developing policies at the whole school or department levels?
7. How are the assessment guidelines being used in planning by individual teachers?
8. How are teachers making and using assessments in the course of teaching?
9. To what extent is teaching differentiated in response to information about pupils performance from assessment and testing?
10. What is the effect on pupils of teachers' assessment and testing?
11. How are tests for P4 and P7 selected and used?
12. What uses are made of released test material?
13. In what ways do primary/secondary schools attempt to ensure curriculum continuity for groups and individual pupils at transition?
14. What are teachers' perceptions of the impact of the 5–14 programme on their workload, professional satisfaction and relationships with pupils and parents?
15. What is the information about individual pupil performance which needs to be made available, in what form, for different users, e.g. teachers and parents?
16. What are teachers' views of the adequacy and usefulness of the exemplar report cards?
17. How are the report cards used in practice by teachers as providers and receivers of information?
18. To what extent are parents satisfied with the information about their children provided by the report cards?
19. To what extent do parents feel adequately informed about and understand the changes brought about in schools by the 5–14 development programme?

20. What is the extent and nature of in-school staff development?

21. To what extent have staff participated in meetings and courses relating to the 5–14 programme provided by the EA?

To address these questions a combination of qualitative and quantitative data was required. Data were gathered by interview and questionnaire, designed as a result of general discussion among the project teams so that information was collected from any one school for all four projects, as appropriate, thus minimising the demands made on schools. In the case of questionnaires, these were all sent out from SCRE, which also carried out data processing and initial analyses. Results relating to each separate project were then distributed to them. At the stage of the preparation of reports, the co-ordination involved discussion among all teams of each one's drafts, the comments being well informed by all teams having an overview of the whole programme.

The longitudinal design

Change of any kind invariably creates disturbance which may be stimulating or inhibiting at various times and under different conditions. The time-scale of the evaluation programme provided some opportunity to study the impact of 5–14 beyond the initial reactions and inevitable demands on teachers' time. Thus it was regarded as very important to build in a longitudinal element to the evaluation. To this end the evaluation was designed to follow the implementation over three years in the same two samples of schools. A nationally representative sample, of about 120 secondary schools and 200 primary schools, was drawn for a questionnaire survey and a sub-sample of the secondary schools in this sample was used to create the sample of schools to be visited. The 15 secondary schools in this sub-sample were chosen to give a balance of large and small, rural and urban schools in rough proportion to the Regional population. A sample of 25 primary schools was then identified from the main 'feeder' schools to the selected secondary schools. Thus a 'visit' sample of 40 schools was identified. Primary schools in this sample were added to the questionnaire sample if they were not already included. The questionnaire sample contained schools from all 12 Regional and Island Authorities, whilst the visit schools were in 9 Authorities (excluding Shetland, The Western Isles and Dumfries and Galloway).

These two samples were used throughout the evaluation project for data collection. The 'visit' sample schools were visited on three occasions in spring 1992, 1993 and 1994 (Figure 3). Each school visit was of a duration of up to one week to allow a researcher to interview the headteacher and several other teachers. In primary schools one teacher from each year group and the learning support teacher were interviewed; in secondary schools principal teachers, subject teachers and learning support teachers were interviewed. The first round of interviews was carried out before the first questionnaire survey in order to identify issues which should be explored further in the survey of the national sample. Thus the surveys served the two main purposes of testing the extent to which findings and perceptions from the interviews were supported more widely in a representative sample of schools and of gathering descriptive data which did not require probing in interviews. In turn new issues thrown up in surveys could be explored in depth in the second and third round of interviews.

Figure 3 : Evaluation Timetable

Term	School visits	Questionnaire	Feedback Meetings
Autumn 1991			
Spring 1992	✓		
Summer 1992			
Autumn 1992		✓	
Spring 1993	✓		
Summer 1993			✓
Autumn 1993		✓	
Spring 1994	✓		
Summer 1994			✓
Autumn 1994			
Spring 1995	**Longitudinal data analysis and report writing**		

Interview schedules and questionnaires used in different years were designed to follow the various phases of the implementation and thus varied in focus and emphasis. The demands made on the schools were considerable, even for those only taking part in the questionnaire survey since there were different questionnaires to be distributed to teachers within the school. Envelopes were provided for all teachers to return their responses in confidence.

For the visit schools the requirements of the evaluation were even more demanding, particularly when, in 1993, they co-operated in arranging for evaluators to interview parents and to send questionnaires to a random sample of parents. It was not felt justifiable to add to this burden by requesting arrangements to be made for interviews with pupils, since it soon became clear that the impact of 5–14 was felt first in teachers' planning and only much later in any changes which might be noticed by pupils. Thus the effect on pupils of teachers' assessment (question 10 on page 13) was investigated only through teachers' perceptions.

Collaborative data collection

The co-ordination had a great impact in the case of information collected by interview during visits to schools. Travelling to a reasonably wide range of schools across the country was made tolerable by each team collecting data from the schools in its geographical area, both primary and secondary. Since each team had to pass on to others interview data collected and each team received data collected by perhaps seven different interviewers, some careful standardisation of interview procedures and recording was required. This was particularly so since it was not feasible to transcribe interviews (they numbered in the region of 400, each perhaps lasting more than an hour) and so procedures for note-taking and prompting needed to be followed with more rigour than may be necessary when an interviewer analyses data collected by him or herself and can supplement notes from memory and non-verbal signals.

Table 2 shows schedule of main events and data collection in the projects:

Table 2 Main events in the co-ordinated projects

1991	April	Planning
	June	Local Authorities contacted Short questionnaire drafted; school sample A drawn
	August	Short questionnaire to A schools to help identify sample B
	October December	Preparation and trial of 1st school visit procedures and instruments Sample B (40 schools) selected and contacted
1992	January April	Visits to sample B schools
	June August	Analysis of 1st school visits. Preparation and trial of 1st questionnaires.
	October December	**First interim reports** Preparation and trial of 2nd school visit procedures and instruments Administration of 1st questionnaire
1993	January April	2nd round of visits to sample B schools Analysis of 1st questionnaire
	June August	Regional feedback meetings Analysis of 2nd school visit data
	October December	Preparation and administration of 2nd questionnaire to sample A schools **Second interim reports** Preparation and trial of 3rd school visit procedures and instruments
1994	January April	Publication of *Interchange No* 23 Analysis of 2nd questionnaire 3rd round of visits to sample B schools
	June August	Regional feedback meetings Analysis of 3rd school visit data
1995	October March	Analysis of longitudinal data from A and B schools **Final report on first 4 years**

Note: Sample A is a representative sample of 350 schools; Sample B is a sub-set of 40 schools from A.

Reports and dissemination activities

The following interim reports were produced:

- *Evaluation of National Testing in Scotland: an interim report on the* test *material and its use in the primary school* (August 1992)
- *Primary Curriculum and Assessment: an interim report from the 5–14 evaluation* (October 1992)
- *5–14 Development Programme Evaluation: Secondary Schools* (October 1992)
- *Test material and its use in the primary school – a supplementary report* (July 1993)
- *5–14 Evaluation Interim Report: Reporting* (September 1993)
- *Evaluation of the 5–14 Development Programme in primary schools: second interim report* (September 1993)
- *5–14 Development Programme Evaluation: Secondary Schools. Second interim report* (September 1994)
- *Implementing 5–14: a progress report Interchange No* 23 February 1994.

The final reports were:

- *Implementing 5-14 in primary schools* (SCRE)
- *Impact on classroom practice in secondary schools* (Northern College)
- *Management of the implementation in secondary schools* (Northern College)
- *Assessment and national testing in secondary schools* (Northern College)
- *Primary/secondary liaison: secondary schools' perspectives* (Northern College)
- *The Professional Journey: a case study of implementation in a secondary school* (Northern College)
- *5-14 and the least and most able pupils* (University of Edinburgh)
- *National testing 1991-92* (University of Edinburgh)
- *Reporting 5-14* (University of Strathclyde).

Dissemination activities

Regional conferences to disseminate findings reported in the *Interchange* (SOED, 1994c) were held in June 1993 in Borders (involving Dumfries and Galloway), in Aberdeen and in Glasgow and updated results were reported to further regional conferences in May 1994 held in Edinburgh, Inverness and Stirling. Papers were also presented at conferences of the Scottish Educational Research Association and at the British Educational Research Association in 1992, 1993 and 1995.

4 Main Findings

Introduction

The initial reception of any major development programme such as 5–14 is a mixture of reactions to the introduction of change itself as well as to the particular changes embodied in the new programme. The reaction to change *per se* may depend upon whether there have been other demands for change either recently or concurrently, on the extent to which the change is thought to be needed and will bring benefits justifying the effort which is required, and whether those who have to implement it feel themselves to be in control or in the grip of external agencies. An evaluation which looks at an innovation for only a short period soon after its introduction has more difficulty in distinguishing between reactions to change as such and to the particular changes introduced than one which extends beyond the period where everything is new. Thus the longitudinal aspect of the 5–14 implementation evaluation is a particular strength which adds validity to its findings.

There were many reasons why 5–14 should have been seen as yet one more change and for that reason alone perceived as a threat. In secondary schools the introduction of Standard Grade had only recently been completed (see page 3) and in both primary and secondary schools there were changes in procedures for school management and development planning which were making additional demands, particularly on senior staff. Further, the 5–14 Development Programme involved teachers in coming to grips with new vocabulary for describing the curriculum as well as some new material within it, and, for some, new concepts in record keeping, reporting and relating assessment and the curriculum. Thus time might be expected to be an important factor in teachers' reactions to the innovation; this indeed turned out to be so.

Reactions to the curriculum guidelines

At the start of the evaluation study, in 1991/92, primary teachers and headteachers expressed no strong views either of resistance to or of liking for the guidelines. Over time they expressed increasing satisfaction as they became more familiar with the content and initial difficulties with terminology were overcome. These views were formed by the implementation of the guidelines for English language and mathematics which dominated the attention of schools in the first two years of the evaluation study. In these areas of the curriculum teachers already had available a good deal of structured help from classroom materials and might be expected to be more satisfied with the current practice and hence more critical of change than in environmental studies, expressive arts and religious and moral education, where, in general, this was not the case. A cautious initial welcome for the English and mathematics guidelines was thus perhaps to be expected, as was the reaction that 'we're doing much of this already'. Towards the end of the

evaluation period it became clear that schools had found more that needed changing in these core areas than they had at first anticipated. The structure provided by the guidelines was more obviously appreciated when primary schools began to consider the environmental studies guidelines in detail. Early indications were that these guidelines were perceived as of considerable help in making clear what was expected in this area and in planning topics to ensure all components were represented.

An early reaction to the guidelines (English language and mathematics) was that they would have an impact on methods of teaching; an impact which some saw as restricting flexibility in the classroom but which others saw as requiring more emphasis on group work and differentiation. These perceptions were, of course, influenced by a school's current teaching methods and satisfaction with them as well as by the form and content of the guidelines. After three years no clear pattern of view on this matter had emerged; teachers had become more at ease with the form of the guidelines, less threatened by the language and were able to assimilate them into their own ways of working. This can be taken as evidence that the guidelines were indeed being received *as* guidance which was causing teachers to reflect on their teaching methods but not dictating how they should make changes. This does not mean that change was not taking place. The changes in practice were at the heart of what is meant by 'implementation'. We return to these after looking at the reaction of secondary teachers to the curriculum guidelines.

Implementation in secondary schools was generally slower to start than in primary schools, although once begun it could proceed more rapidly since English and mathematics departments worked in parallel rather than tackling one subject after the other, which was the usual pattern in primary schools. Thus the reactions gathered from secondary staff in 1991/92 were to the written documents and the potential for change and not based on the experience of beginning implementation. The advantages of 5–14 were seen at that time mainly in terms of better continuity from primary to secondary school, the clear structure of progression and the attention given to S1 and S2 work. Disadvantages perceived were concerned with workload, the amount of detail prescribed and, as in the case of primary teachers, the terminology and use of what was considered to be jargon.

The initial reactions and subsequent change in views of secondary school staff were very similar to those of primary school staff. A structure of outcomes, strands, targets and levels was being introduced in the curriculum for S1 and S2 for the first time, as it was for primary schools, a structure which it took time to understand and begin to use effectively in planning and evaluation. Reactions to 5–14 became more positive in most schools as this process proceeded.

The process of implementation

In both primary and secondary schools the following sequence of overlapping events could be discerned in the process of becoming familiar with and using the guidelines. At the whole school or department level:

(a) study of the guidelines by individual or a group of senior staff

(b) audit of school/department programme and resources in relation to the requirements of the guidelines

(c) development or revision of school or departmental policy to accommodate the guidelines
(d) forward plans or individual teachers required to reflect the guidelines
(e) some new aspects of content introduced in classrooms
(f) new resources in place
(g) all staff planning matched to 5–14
(h) assessment and reporting guidelines in use.

In relation to curriculum guidelines other than those in English language and mathematics few schools had proceeded beyond the first two points in this list by 1993/94 and thus implementation of 5–14 in these areas could be said to be no more than at the early stages.

At the individual teacher level the process was less formal:

(a) dipping into the documents
(b) reflecting on current work with colleagues
(c) participating in in-school or regional in-service
(d) identifying new elements to be included in class work
(e) adjusting forward planning to match 5–14
(f) introducing changes in classroom activities
(g) making changes in assessment and recording.

Facilitating factors

Factors assisting these changes were similar in primary and secondary schools although taking somewhat different forms reflecting the differences in school structure. The main facilitating factors were school development planning, the operation of a cluster or area group and delegation of responsibility within the school.

School development planning, which was being introduced at about the same time as 5–14, emerged as perhaps the most significant factor, although not seen as such at the start. School (or department) planning of priorities enabled teachers to take charge of the nature and pace of change in the context of the particular circumstances and other demands on the school. However, the existence of a school development plan did not always provide the protection schools had hoped from what they perceived as 'outside' pressures to accelerate the pace of change. There remained the tension between the slower, but ultimately more satisfying, implementation by consent, and the speedier changes which can be brought about by dictum but often incurring resistance and resentment. In the case of 5–14 this was avoided by SOED support for school development planning as a means for schools to come to terms with the new programme and by recognition of the time scale needed for schools to manage the necessary change.

A second factor was *the support given to schools by their area or 'cluster' group*. It appeared that the initially high expectations of this support were slightly diminished over time, when the effort put into preparing shared plans and documents began to appear to some (particularly primary school headteachers) as leading to 'reinventing the wheel' and when priorities of the group were not

synchronised with the pace of implementation in individual schools. From the secondary school perspective, however, these groups were a significant route for achieving what was seen as a major aim of 5–14, a smoother primary-secondary transition. The asymmetry of the relationship between primary and secondary schools made these groups an important part, although not the only component, of their strategies for achieving better liaison between schools.

In primary and secondary schools an important internal factor promoting change was *the designation of a senior member of staff as 5–14 co-ordinator*. A single person with this responsibility was found to be more effective than a committee. Beyond the co-ordinator, however, the support of staff generally was a major determinant of the ease or difficulty of implementation, underlining the importance of effective management in creating a climate of co-operation and consensus. Delegation of responsibility had limited application in small primary schools and there is no doubt that it was in such schools that headteachers were under considerable stress, particularly in the first years when the amount of reading, reviewing and planning required was independent of school size but could not be shared out.

As schools gradually put into place the structures which facilitated implementation, the process became significantly easier. Indeed 87% of teachers in primary schools found implementation easier in 1993/94 than in previous years. At the same time there were small signs of alleviation of some of the inhibiting factors, although more was to be done in this matter. The publication in 1994 of *A Practical Guide*, with its proposed schedule for implementation extending to 1999 (see page 6), was an important statement likely to reduce the acute feeling of pressure, but one which schools had not had time to absorb before the last opportunity for collection of data included in this evaluation.

Inhibiting factors

At the head of any list of factors inhibiting the pace of implementation must be *time*, which was mentioned repeatedly throughout the period of the evaluation and by all school staff. Many headteachers held that the process could have proceeded more quickly had teachers had more non-teaching time in which to read documents, attend meetings, draw up plans and put them into action. Apart from time, primary staff cited more resources (financial and human), print-based materials, and in-service courses as their main needs. Support provided to staff by the regional authorities was criticised in the early years of 5–14 but was found more helpful in later years. Locally or regionally produced materials were found of particular help. (Very little of the materials produced by the Scottish CCC were available at the time of these enquiries.)

Next to time, secondary teachers placed highest on their list of features constraining implementation the requirements of other changes, actual and anticipated, to the secondary school curriculum. Other needs reflected those expressed by primary staff, although secondary teachers appeared to benefit more than primary teachers from advice from local advisers. However as the implementation proceeded in secondary schools it was clear that time and pressure of other developments emerged as by far the most serious obstacles to progress with 5–14.

■ Changes resulting from 5–14

In primary schools the changes already brought about (in 1994) or planned to take place in the near future, as a result of 5–14, in at least half of the schools were, in descending order of frequency:

- changed emphasis on existing content
- introduction of additional content
- replacement of previous content
- more resources in the classroom
- more subject-based teaching
- more collaborative lesson planning
- more collaborative teaching.

A majority of primary school staff did not consider that change was needed in the amount of group work, differentiation or the structure of lesson plans as current practice in these respects was considered to meet the 5–14 requirements.

In secondary schools the majority of mathematics and English teachers thought that any changes in content brought about by 5–14 were minor, comprising some filling of gaps and change of emphasis. It was differentiation which was the greatest concern to secondary staff. This was more so for English teachers than for mathematics teachers who considered it to be built into their schemes. English teachers were adopting a wider range of teaching approaches which would accommodate the requirements of 5–14.

■ Continuity at points of transition

The 5–14 Development Programme brought added impetus to existing efforts to improve primary-secondary continuity in pupils' progress. In the second year of the evaluation study there was evidence of all schools being involved in liaison activities, with most taking part in several different types of activity. The most frequent and successful was the visit of primary school pupils to secondary schools. This was followed in terms of perceived effectiveness by discussion among teachers and then by team teaching. Common practices judged rather less successful were sending pupils' work to secondary schools and joint in-service activities. Linked work, begun in the primary school and continued in the secondary school, was practised in less than half of the schools but where it did occur it was judged high in success. This strategy was also valued in bridging the transition from nursery to primary school.

Primary school staff were on the whole satisfied with the meetings with secondary school staff, their main criticism being that discussions were not sufficiently curriculum focused. In the early stages they were aware of the slower pace at which secondary schools had turned attention to 5–14, the secondary staff being preoccupied with other curriculum changes.

The views of secondary school staff about the success of particular strategies were similar to those of primary staff although there were subject differences in the form these took. For example mathematics teachers had built upon and developed links set up before 5–14 for fostering continuity through use of specific schemes or diagnostic tests in P7.

The strategies mentioned so far all operated at the class or group level, that is, in terms of serving continuity in the general demand and type of work. Continuity for individual pupils depends on a match of demand to achievement at a more personal level. To achieve this means that information at this individual level has to be communicated and used. The evaluation indicated that individual records passed from one school to another were an under-used resource. Almost half of secondary mathematics teachers and the majority of English teachers did not refer to primary school records at all. Where the records were used it was normally for the purpose of grouping pupils or to identify those likely to have particular needs. Reasons for not using primary school records included an explicit or implicit preference for the 'fresh start' but also the difficulty of using records, varying in content and consistency, from different schools. Little progress on the scale required was discerned during the period of the evaluation, although some schools were making efforts to agree information to be passed on and this included work assessed in terms of 5–14 levels and some self-assessment by pupils.

It was evident that considerably more time and ingenuity will be required to change attitudes and practices which favour the deliberate discontinuity at the individual level associated with the 'fresh start' approach. That this is not a matter of difference in attitude between primary and secondary teachers is shown by its appearance at transition from nursery to primary school. The criteria provided by 5–14 should in theory help to overcome the view that teachers' comments are too subjective and diverse to be useful, but the signs of change thus far were disappointingly small.

Catering for pupils of all abilities

It is the declared intention that the 5–14 programme should provide opportunities for pupils across the range of ability to learn from the full range of experiences indicated in the curriculum guidelines. The guidelines for each subject area include a section on catering for the needs of individual pupils in which the importance of differentiation is underlined. Differentiation depends on teachers identifying the development of individual pupils and adapting activities and levels of support to ensure that pupils are engaged in ways which promote learning. To find out how helpful the guidelines were in supporting teachers in catering for all abilities a study of how teachers were using 5–14 to cater for the least and most able pupils was carried out from autumn of 1993 to spring 1995 (see page 11). The study drew upon the questionnaire and interview data collected in late 1993 and early 1994 from primary and secondary schools and focused case studies in a total of ten classrooms in three primary schools and one secondary school. These case studies included the only systematic classroom observations, of work in mathematics and English, carried out in the evaluation programme. (Other visits to classrooms were informal and designed to provide background information about the work context of teachers interviewed.) Pupils identified by their teachers as being the least and most able were observed, completed short questionnaires and were interviewed in groups.

The study found that teachers in both primary and secondary schools identified pupils as being at on or other end of the ability continuum on the basis of their general learning ability and their learning styles. Teachers made provision for

the most able through small group teaching, additional worksheets, use of technology, introducing more problem-solving and individual research and other forms of extensions to activities. Pupils at the lower end of the ability spectrum were more likely to be given individual support and encouragement and were also helped by additional materials, worksheets matched to their development and use of technology.

In general teachers had more confidence in dealing with the least able pupils than the most able. But most teachers found some difficulty in using the guidelines to help the least able pupils. Not only did such pupils often have an uneven profile which did not fall within one level but the level A work made assumptions about previous experiences which did not always apply to pupils with learning difficulties. At the same time, however, it was recognised that the guidelines provided a structure which identified lines of progress useful in planning, although the levels were considered too broad and needed to be broken down to suit the slower pace of the least able pupils.

Observations of classroom activities of the least and most able pupils indicated a greater degree of differentiation in activities in primary pupils than in the secondary school classrooms. The more able pupils in secondary classes were likely to encounter work which they found undemanding. Teachers' judgements of the levels at which pupils were working were judged to be in line with the 5–14 level descriptions. Discussion with pupils indicated that the pupils were aware of their position in the ability order in the classroom despite teachers' attempts to minimise any labelling by ability. There was some evidence that the more able pupils welcomed opportunities to work independently whilst the least able had a preference for working in a group.

■ The guidelines on assessment

Reporting teachers' reactions to the guidelines on assessment is not the same as reporting their reactions to assessment in the 5–14 programme as a whole. There is much relating to assessment in the curriculum guidelines, each of which contain a section on assessment in its particular content area. Furthermore the whole structure of targets at levels is based on the description of pupils' progress in terms of the level criteria. Thus the curriculum guidelines gave teachers access to the principles of including assessment within teaching and many teachers were implicitly using these principles without necessarily recognising that in doing so they were implementing the national guidelines *Assessment 5–14*.

With this point in mind, we turn to teachers' reactions to and their use of the assessment guidelines document. There were sufficient differences in the findings between primary and secondary schools and between departments in secondary schools to make it unwieldy to consider both phases together. Further, there were variations in the extent to which the evaluation probed various aspects of assessment and recording, reflecting the different background experience of primary and secondary teachers in such matters as using criteria in assessment. The findings from primary and secondary schools are therefore considered separately.

Implementation in secondary schools

Looking first at secondary schools, serious attention was given to the assessment guidelines after the implementation of the curriculum guidelines for English language and mathematics was under way, which was well into the 1993/94 session. Initial reactions had been favourable towards the principles set out in the assessment guidelines. Most principal teachers anticipated that few changes would be needed in the assessment policies of their departments and teachers were generally positive in their reactions, whilst expressing some concern about the likely increase in assessment and recording and the time this would take. Later more detailed study of the guidelines revealed implications for changes in department policies and classroom practice if the agreed benefits, of teachers having more information about their pupils, were to be realised.

By the end of 1993 the majority of principal teachers recognised that changes of the following kinds were needed:

- more structured record keeping
- more uniformity in assessment methods
- more integration of assessment into planning
- a more child-centred approach to assessment.

These things were already happening in about a quarter of schools and planned in between a half and two thirds of the others, but there were differences between departments in relation to the amount of further change which was needed, with fewer principal teachers of mathematics than principal teachers of English considering this to be necessary.

Secondary teachers' comments indicated that the majority expected there to be more attention to record keeping, more formal assessment and record keeping procedures at the school level, and more emphasis on differentiation. More than half of the English teachers, but fewer mathematics teachers, also anticipated more pupil self-assessment and building assessment more into lesson planning. This subject difference may be linked with the use of schemes in mathematics with built in assessment, often including pupil self-assessment, to a greater extent than in the teaching of English.

Implementation in primary schools

The implementation of the assessment guidelines document by primary teachers was also slow to begin and most schools were still at the level of 'awareness-raising' in 1994. Among the reasons for reluctance to take notice of the assessment guidelines was the priority given to the content of the curriculum. This in itself was an indication of what became explicit in many teachers' comments, that assessment was seen as coming at the end of teaching and not at the stages of planning and teaching. Discussions with teachers about assessment in 1991/92 revealed that few had studied the guidelines, that many held views of assessment which were at odds with what was expounded in the guidelines and that they often identified assessment with record keeping or with testing. It was not surprising, therefore that it took time for teachers to study the document and to come to more informed views of its contents.

The reluctance of primary class teachers to take the assessment guidelines on board was not found among primary headteachers, who, as their secondary counterparts, had formed generally favourable views of the document from the start. They particularly liked the notion of assessment being embedded as a central part of planning, teaching, recording, reporting and evaluating. They were pleased to see the move away from assessment being a separate activity from teaching, which took place subsequent to rather than being part of learning experiences. Headteachers welcomed the guidelines as being based on good practice, particularly in encouraging teachers to reflect on their teaching and in raising the status of assessment. Among other points welcomed were: the emphasis on pupils self-assessment; the provision of information of increased detail (going beyond 'she's doing well in maths') which would be useful to teachers and parents; the support for pupil profiles; and the provision of good support materials.

What headteachers disliked about the assessment guidelines included: the fact that they were in a separate document from the curriculum guidelines; the perceived over emphasis on written recording; the absence of examples; and the time they were likely to take to put into practice.

Comments from teachers were less well informed than those of headteachers, since even in 1994 about half of the teachers in the sample had not read the guidelines sufficiently well to comment on them. Those who had done so made more positive than negative comments and were mainly concerned to have more practical guidance.

Changes in practice identified by primary headteachers at the end of 1993 were, in descending order of frequency (from two-thirds of schools to one-third):

- development of a whole school assessment system
- more integration of assessment into teaching
- more structured record-keeping
- greater uniformity among teachers in assessment methods
- greater uniformity in records passed to secondary schools
- a more child-centred approach to assessment.

From the perspective of class teachers, the changes that had happened, again in descending order of frequency from two-thirds to one-third of classes, were:

- greater attention to keeping records
- building assessment more fully into lesson planning
- assessing 'difficult' areas such as creativity, listening and talking more often
- giving more written tasks for the purpose of assessment
- using a more formal school recording procedure.

Primary teachers' records

The greater attention to keeping records for their own purposes followed in many cases from the more structured record-keeping introduced at the school level. Teachers were aware not only of keeping more records but of keeping more focused records, relating to individual strands within outcomes; they were also extending assessment and record keeping to areas of work, such as PE, in which

they had not previously kept records of progress. In some cases the record systems created within schools seemed over-elaborate and were seriously adding to teachers' workloads. No doubt school staff would streamline such procedures in the light of experience, helped by the advice in *5–14: A Practical Guide* which, as noted earlier, they had not received at the time that these observations were made.

One particular piece of advice in *5–14: A Practical Guide* is that 'It is not necessary to make a comment or ascribe a level to each pupils for each strand or attainment target' (SOED, 1994a, p29). Schools where records of this detail were in terms of levels had encountered the question of the extent of agreement among staff as to the meaning of levels. Interviews with headteachers and teachers in spring 1994 indicated that they felt confident in their own ability to recognise levels, but only in certain subject areas and sometimes only for certain levels, depending on their familiarity with the targets and on the help they had received in specific areas.

About half of the teachers thought there would be agreement among teachers on the interpretation of levels, the other half being divided between those who thought there would be disagreement or only agreement among those teachers who worked closely together. The question of moderation of the interpretation of levels was beginning to be addressed through headteachers' initiative in their own schools and within cluster groups. Some headteachers also mentioned the role of national testing in helping to gauge levels in those outcomes where test material existed.

■ National testing

Prior to 1993 the arrangements for National Testing had been that tests in reading, writing and mathematics were administered to pupils towards the end of the year in P4 and P7 (see page 8). The evaluation carried out in 1992 revealed that:

- primary headteachers had reservations about the value of national testing; reasons included that it added very little to information teachers had about their pupils but added much to their workload
- class teachers were concerned about the principle of testing in the primary school and about practical matters such as the amount of work involved in administering and marking tests, the consistency of marking across classes and schools and the danger of 'teaching to the test'
- teachers and headteachers liked the test material itself, finding it to reflect the curriculum, to be of good quality and useful as regular teaching material
- pupils found the test materials enjoyable to work with, but there was evidence of nervousness and apprehension created by the test situation
- parents were divided about the principle of National Testing and many queried its value in relation to the teaching and learning time spent on testing, its cost and the possible effect on pupils who did not succeed as hoped; a minority thought that testing in the primary school was a good preparation for secondary school and for living in a competitive world

- there was concern among school staff and parents about the uses to which school test results might be put, despite assurances that school data would not be collected centrally.

The revised arrangements, introduced in 1992 made provision for all pupils throughout the age range 5 to 14 to be tested in reading, writing and mathematics when, in their teacher's judgement, they were able to succeed at a particular level (see page 8). The new arrangements were to be implemented from January 1993 in primary schools and from January 1994 in secondary schools.

Reactions in primary schools

Data gathered from primary schools in 1993 indicated teachers' reactions to the revised arrangements. Just under two thirds of headteachers were on the whole satisfied with the new arrangements although voicing some reservations. They approved of the flexibility for teachers to be in control of decisions about when and how pupils were tested. They expected this to enable teachers to integrate the tests into classroom work and so reduce anxiety in the pupils. Other advantages noted by a few were that the tests would confirm teachers' judgements and help them to interpret the levels.

The main disadvantages expressed were concerned with the practicalities of implementation, such as, for example, how decisions about which tests to order would be collated and how teachers would arrange for a few pupils to take tests whilst others continued with regular work. Some headteachers objected to the testing because the tests had no diagnostic value and added nothing to the information about the pupils' achievements. Many class teachers shared these views but others thought that the tests would provide useful back-up to their own assessment and might even boost their confidence in their own judgements. Only a minority of headteachers seemed to have recognised that the role of tests in the new arrangements was indeed to confirm teachers' judgements. Teachers remained concerned about added workload and some about teaching to the test, although it was difficult to see who would gain if pupils were 'coached' in the test material.

When the final evaluation data collection took place in spring 1994 less than a half of primary schools had actually carried out testing under the new arrangements. This was partly because of timing, for it became clear that, although testing could take place at any time, most would be carried out in the late spring or summer term when teachers had had time confidently to reach their own assessment of pupils. There was, therefore, a small base of experience of conducting tests. What evidence there was indicated that class teachers took on the majority of work of choosing, administering, and marking tests and recording the results. Tests were kept 'low key' and given in the normal classroom conditions. Schools informed parents in a variety of ways about their children's results but there was little incidence of parents being consulted prior to testing.

Reactions in secondary schools

Decisions about the procedures to be used in conducting national testing for the first time in secondary schools were still being made when the last evaluation data collection took place. Thus no more than early intentions can be reported.

It was anticipated that, as in the primary schools, the class teacher would have the major role in choosing and conducting the tests whilst the principal teachers of English and mathematics would be responsible for ordering test units. Most principal teachers anticipated that the tests would be administered to small groups of pupils at one time.

In preparation for implementation, secondary staff had been studying the test material. Reactions were mixed. Reasons for liking it were that it was interesting, attractive and not likely to be overawing to pupils. English teachers particularly liked the reading test material. Negative comments were to the effect that the material was more suitable for primary pupils and seemed contrived, although half of the headteachers considered the test units suitable for S1 and S2. However the greatest concern was with the additional volume of work that testing was expected to involve as it was became an integral part of a school's assessment policy.

■ Reporting 5–14

If assessment was seen as something which could be put on one side until the content of the curriculum had been reviewed in the light of the guidelines, then reporting was seen as yet a further step away from the central priorities of school staff. Delay in publishing the National Guidelines *Reporting 5–14: Promoting Partnership*, in November 1992, also meant that little changed in response to the document until the 1993/94 session. Also like assessment, change and planned change to reporting and communication with parents arose not only from the guidelines document. The structure of the curriculum had to be reflected in the records kept by schools and the reports of progress made to parents. Thus reporting required schools to explain the structure of the 5–14 development programme to parents, a matter which caused them some concern, particularly in relation to the meaning of levels.

Views on existing forms of reporting

Data collected by questionnaire and interviews from teachers and parents in late 1992 and early 1993 established a baseline of views about written and oral communication between schools and parents existing prior to 5–14. Satisfaction with the current form of reporting was greater among both teachers and parents at the secondary school level than at the primary school level. Secondary reports were already more structured and subject-specific and over half made provision for parents' comments. Criticisms focused on lack of detailed information, particularly in primary written reports. Parents wanted more 'early warning' about potential difficulties and found written reports of limited value for this purpose compared with direct discussion with teachers.

Views on new forms of reporting

The suggested new form of report was welcomed by the majority of parents. Teachers had more reservations which were mainly about: how parents would interpret the levels; the effect on their other work of the time taken to complete the new form; and the implications of stating 'next steps' or 'development needs' which might appear to constrain the freedom of the pupils' future teachers. Parents shared teachers views that the amount of work involved in reporting in detail might be detrimental to teaching, although this view of reporting being

'extra' to teaching denied the wholeness of the relationship between teaching and learning, recording and reporting, indicating that one of the messages of the reporting guidelines had yet to be absorbed. Parents underlined the value of face-to-face meetings with teachers. However schools acknowledged that the difficulties encountered by some parents in attending meetings meant that written reporting would remain for some the main channel of communication.

Change in practice

By the beginning of 1994 there was evidence of changes in reporting taking place, or having been planned, in all primary schools visited in the evaluation. In all cases 5–14 was the catalyst for change, either on the initiative of the headteacher or required by the local authority, but in general the form the change took was a compromise between current practice and that recommended in the guidelines. Planned or implemented changes included: reporting achievement in terms of the structure of outcomes and levels of the 5–14 curriculum; provision for parental comments where this was not already included; suggestions with regard to further development; more written comment, particularly about language development; and, in a minority of schools, provision for pupil comment.

Secondary schools were at an earlier stage in making and planning changes, largely because of the time-lag in implementing 5–14 and the greater complexity of the school structure, but also influenced by the fact that many existing forms of reporting already being structured in a way compatible with 5–14. Where changes were envisaged they were similar to those introduced or planned by primary schools.

It was too early to evaluate the impact of these changes on the extent to which they were effective in 'promoting partnership' as intended. Effectiveness in this regard would depend on some change not only in practice but in attitude towards reporting, moving towards a more widespread view of its role as integral to helping pupils' learning.

■ Breadth, balance, coherence, continuity and progression

The principles governing the 5–14 curriculum were set out in terms of breadth, balance, coherence, continuity and progression (SOED, 1993,p6); their meaning has been noted on page 7. It is appropriate, therefore, that findings of the evaluation should be brought together to shed light on the question as to the extent to which these principles were being translated into practice. Since the whole curriculum was not being implemented at the time of the evaluation study, the answer can only be partial, pointing to indications of positive change and areas where there may have been less change than might have been anticipated.

Breadth

Breadth in terms of the range of experiences could only be judged in relation to English and mathematics, where implementation was furthest advanced. The evidence of the introduction of new content, changed emphasis in existing content and the acquisition of new resources for teaching in both subjects gave clear indication that school staff were making successful efforts to ensure that their programmes were matched to the curriculum guidelines. Schools were

making changes as a result of systematic curriculum audit of existing provision in comparison with the guidelines and thus had set into action procedures which should ensure that the guidelines yet to be implemented would be introduced in a way which preserved breadth in pupils' learning experiences.

Balance

It is perhaps rather too soon to comment on balance in respect of time allocation across the whole curriculum. Time allocation in English and mathematics was not a focus of the evaluation. It would not have been unreasonable for more time than was intended to be allocated to these areas whilst changes were being made; these were the 'pioneer' areas and procedures for making changes were being developed and put into practice for the first time. Balance within the subject areas in terms of the variety of learning activities was clearly being established, as for example, in terms of more time being spent on speaking and listening in English and on problem-solving and information handling in mathematics.

Coherence

Coherence refers to links between different areas of learning to ensure that they reinforce each other and enable pupils to use their learning in real contexts. The chief mechanism for this in primary schools was topic-based curriculum planning. School staff were using the guidelines in planning their topics to ensure that experiences relating to all outcomes and strands were included whilst preserving the coherence of the topic. At the same time, schools indicated that one of the changes as a result of 5–14 was more subject-based teaching. What is not known is whether this was in order to achieve an optimum balance between subject teaching and topic work or a response to the subject-based form of the guidelines. There was no evidence that the implementation of 5–14 in secondary schools was making changes to the existing links, or absence of them, between areas of the curriculum.

Continuity

Progress in promoting continuity of learning experiences at points of transition from school to school is an aspect about which there is reason both for optimism and pessimism. The 5–14 programme had certainly been a stimulus to liaison between primary and secondary school staff and to some extent between nursery and primary staff. The various effective strategies for improving communication and continuity in the type and level of work across the transition that were being put into place were grounds for optimism. However, in terms of continuity in progress for the individual pupil, the entrenched preference for a 'fresh start' and lack of interest in records and work sent by pupils' previous teachers remain a cause for come concern. Continuity from class to class within a school is likely to be improved by the introduction of school-wide, or departmental, procedures for assessment and recording, although the evaluation did not provide evidence to confirm whether or not this was the case.

Progression

There is encouraging evidence that progression was being facilitated by the 5–14 guidelines being used in forward planning. Not only were individual teachers

using the progression within strands in their forward planning but there was more whole school or departmental planning, through which gaps and unhelpful repetition was being avoided. The involvement of all schools in primary-secondary liaison was improving continuity at the transition from primary to secondary school. Progression at the individual pupil level, however, depends on differentiation within the planned programme. This in turn depends upon the integration of assessment into teaching and the full implementation of the assessment guidelines. The evaluation revealed that this process was taking place rather slowly and was probably impeded by teachers' associating assessment rather too closely with record keeping and with testing. Shortly after this first phase of the evaluation was completed, help was made available in the form of diagnostic procedures (SCRE, 1995) which meet teachers requests for detailed guidance and examples of what formative assessment means in practice.

In conclusion

The four year evaluation programme covered the early years of implementation of the 5-14 National Guidelines. During this time schools were giving attention almost exclusively to incorporating the guidelines for English and mathematics into their practice. Those in senior management roles welcomed the aims of 5-14 from the start; it took more time for those responsible for classroom implementation to embrace these more fully. At the start there was some alarm, particularly among primary teachers at what seemed an unremitting stream of documents making new demands. As time went on, growing ease with the structure and vocabulary of the guidelines enabled teachers to recognise continuity with existing work and to identify aspects of existing practice that it was necessary to change.

It was the pace rather than the nature of the changes which was of most concern. Lack of official guidance about this caused uncertainty, but it did allow schools to adopt a pace that was regulated by their school development plans and thus to assume ownership of the implementation. Feedback from the formative evaluation may well have been a factor in the later endorsement by HMI (SOED, 1994a) of the pace that schools were finding tolerable.

However, this pace meant that the evaluation was able to study only the implementation of two of the curriculum guidelines and the beginning of use of the assessment and reporting guidelines. Changes in the arrangements for national testing, announced at the end of 1992, were also only beginning to be put into practice when the final data were collected. Thus there is a considerable need to continue the evaluation to study the impact of the whole programme and the extent to which changes already made and beginning to be made will endure. There will, therefore, be much interest in the findings which emerge as the evaluation is continued, although on a reduced scale from 1995 to 1997.

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FINAL REPORTS OF THE 5–14 EVALUATION

The final reports are available as follows:

5–14 in the Primary School: the first four years.
This report is available from the Scottish Council for Research in Education, 15 St John Street, Edinburgh EH8 8JR.

Implementing the 5-14 development programme in secondary schools
The data gathered over the four years of the evaluation in secondary schools are collated in the following reports:

- *Impact of classroom practice in secondary schools*
- *Management of the implementation in secondary schools*
- *Assessment and national testing in secondary schools*
- *Primary/secondary liaison: secondary schools' perspective*
- *The professional journey: a case study of implementation in a secondary school*

Copies of these reports can be obtained from the Department of Educational Research, Northern College, Hilton Place, Aberdeen AB9 1FA. For further information, consult the Northern College World Wide Web server at http://www.norcol.ac.uk

5-14 and national testing

- *5-14 and the least and most able pupils*
- *National testing 1991-92*

Available from Dr George Thomson, Department of Education, University of Edinburgh, 10 Buccleuch Place, Edinburgh EH8 9JT.

5-14 and reporting
Reporting 5-14
This report will be available from the Quality in Education Centre, University of Strathclyde, Jordanhill Campus, Southbrae Drive, Glasgow G13 1PP.

A limited number of copies of the following Interchange summaries are available from the RIU Dissemination Officer, The Scottish Council for Research in Education, 15 St John Street, Edinburgh EH8 8JR.

Interchanges
Implementing 5–14: A Progress Report, Interchange No 23
Putting 5–14 in Place: An overview of the methods and findings of the evaluation 1991-95, Interchange No 35
Implementing 5–14 in Primary Schools, Interchange No 36
Implementing 5–14 in Secondary Schools, Interchange No 37.

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